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ABSTRACT

An empirical model for evaluating a school-TAFE (technical and further education) link program was derived from the results of an evaluation of a Queensland, Australia, program. The program established a TAFE center run by the county TAFE college on high school grounds, in which students could take 50% of their courses. The evaluation gathered information from the high school, TAFE, and community. The following criteria were used: suitability of location, effectiveness of organizational structure, use of resources, use of staff, suitability of curriculum, cost effectiveness, achievement of expected outcomes, and alternative solutions. For each criterion, relevant questions were generated to gather both qualitative and quantitative information. Field test results were as follows: the location was not suitable due to lack of potential growth and employment opportunities and small town population; layout of the building inhibited offerings of new programs; center and school staff did not communicate regularly; with no updated written policies on center organization and operation, resources and facilities were not being used to their potential; subjects offered provided very limited employment prospects; and although TAFE students acquired job skills and experience, they were not offered classes for entrance to university education. Options included closing down the center, improving it, or reorganizing it. (YLB)

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EVALUATION OF A SCHOOL-TAFE LINK: AN EMPIRICAL MODEL

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As a result of the Commonwealth and the State governments' emphasis on broad curriculum offerings in schools, various types of technical and further education (TAFE) and academic (school) link programs are emerging, especially at the post-compulsory level (Australian Education Council, 1990). Traditionally, TAFE and academic education are offered by separate departments or agencies. Both types of education require specific facilities, equipment, teaching and learning strategies, staffing, and curriculum materials and support (Jones & Krzemionka, 1987). This leads to problems in linking the school and TAFE sectors in the offering of a broad general education program for students. Therefore, it is necessary to evaluate a school-TAFE link for its effectiveness and efficiency in terms of environmental scan, organisational structure, operations, curriculum offerings, costs and benefits, and expected outcomes.

The purpose of this paper is to describe an empirical model with its components that could be used in the evaluation of a school-TAFE link program or programs.

The model was developed from an evaluation of a school-TAFE link program in Queensland (Navaratnam & Bamford, 1990). It was field-tested, revised, and refined in consultation with a panel of experts.

The model

An evaluation of any school-TAFE link with regard to its effectiveness and efficiency cannot be conducted without acquiring a wide range of comprehensive and reliable information, including socio-economic, demographic and employment conditions of the location; organisational structure; administration and management; resource allocations; funding arrangements; curriculum development; staff; students; evaluation policy and accountability; and expected outcomes of the school-TAFE link program. An evaluator or reviewer needs to gather and use such information to make a rational decision regarding the effectiveness and efficiency of the school-TAFE link. This requires a systematic evaluation process. This process could be adapted from already existing evaluation models or it may be a new model developed from knowledge and understanding of a real-life experience.

The model developed from a comprehensive evaluation of a school-TAFE link program is presented in Figure 1. The main features of the model include:

- a. Identify the purpose of the evaluation;
- b. Develop criteria in conjunction with the purpose;
- c. Develop questions in conjunction with the criteria;
- d. Collect information in conjunction with the questions;
- e. Analyse results and consequences; and
- f. Make recommendations and decisions.

The model suggests that the purpose of the evaluation must be defined in operational terms and criteria or standards be developed at an early stage of the evaluation process based on the purpose. Thus, the evaluation criteria can be customised to a specific school-TAFE link program. For each criteria, a set of key evaluation questions must be generated. The generation of questions could be

done by an evaluator in consultation with a panel of experts. Both qualitative and quantitative information could be collected, analysed and summarised by generating relevant evaluation questions. Based on these findings, consequences could be analysed to make specific recommendations and decisions regarding the operation and management of a school-TAFE link program.

Field testing of the model

This model was derived from the results of an evaluation of a school-TAFE link program in Queensland. The state high school under review was opened in 1963 and its curriculum is organised to provide a wide range of options for students from Year 8 through to Year 12. Senior secondary students of the high school have an option of selecting 50% of their studies in the school and the other 50% from TAFE subjects. For this purpose, a TAFE centre under the control of a country TAFE college was established in the high school grounds in 1986. Thus, a school-TAFE link was established to promote and provide vocational, preparatory, and personal enrichment learning opportunities to meet the needs of the senior secondary students in the high school. The current organisational structure of the school-TAFE link is presented in Figure 2. However, to ensure confidentiality, the names of the TAFE centre and the school have been omitted in this paper.

In 1990, the Bureau of Employment, Vocational and Further Education and Training (BEVFET) which administers TAFE in Queensland conducted a comprehensive evaluation of the school-TAFE link. The purpose of the evaluation was to ascertain the suitability of a school-TAFE link program and to apply the information gained to develop a model to evaluate similar programs. Thus, a model was developed, revised, and refined. Considering the time, money, and other resources required for additional field testing, it is assumed that the process by which the model developed was sufficient to demonstrate its usefulness for evaluating school-TAFE link programs. A steering committee representing curriculum, program evaluation, and auditing personnel was set up at the commencement of this evaluation. The

group met to revise and refine the purpose and specific objectives in accordance with the terms of reference of the evaluation. Information was collected from multiple sources: visits to school and TAFE establishments; analysis of records; evaluation of literature; submissions; discussions and interviews with different personnel in TAFE and the Department of Education at state and regional levels; community leaders involved in the establishment of the TAFE centre; members of the campus council; chairman of the Shire in which the school and TAFE centre are located; employers; owners of major industries and enterprises in the Shire; Commonwealth Employment Service personnel; and teachers and students at school as well as in the TAFE centre.

A major part of the evaluation involved gathering information from three major components of the school-TAFE link: the school, TAFE, and the community. A case study framework was developed and used to facilitate the information collection. As shown in Figure 3, the framework consisted of several major components, including an environmental scan and an organisational structure; facilities and resources; educational programs; staff; students; and learning outcomes pertaining to the school-TAFE link program. Submissions were requested from the Regional Director of the Department of Education; the Director of the particular TAFE college; the Principal of the State High School; and the Senior Technical Teacher of the TAFE centre. Socio-economic and demographic information of the selected area was collected from the Shire Council, the Australian Local Government Handbook, and Local Government Areas Statistical Summary. Local industry and major farms were visited and discussions were conducted covering the current condition of their enterprises and future expansion potential for their industries. Existing infrastructure facilities were recorded and future expansion possibilities were explored. To assist in the evaluation of this school-TAFE link the following criteria were used:

- Suitability of location,
- Effectiveness of organisational structure,
- Utilisation of resources,
- Utilisation of staff,
- Suitability of curriculum,

Cost effectiveness,
Achievement of expected outcomes, and
Alternative solutions.

The criteria were defined in operational terms so that the evaluator could ensure that the expected data collection methods were consistent with the purpose of the evaluation. For each criteria, the relevant questions were generated to gather both the qualitative and quantitative information. The questions are presented below:

Suitability of location

- Is the target population large enough for the programs?
- Is there potential for economic expansion?
- Is transportation a major problem?
- Are there alternative programs available for the same students?
- Does the TAFE centre cater for industry needs?
- Does the community support a separate TAFE facility?

Effectiveness of the organisational structure

- Is there any policy governing the organisation, administration and management?
- Is there a joint policy for funding the centre?
- Is there a need for any improvement in the organisation and operation?
- Is the campus/school advisory council effective?
- Is there any conflict between school and TAFE sectors?
- Are there any joint accountability and reporting systems?

Utilisation of Resources

- Are buildings and facilities suitable for offering a variety of TAFE programs?
- Are resources used effectively and efficiently?
- Is there a commitment from educational sectors for future resources?
- Is equipment technology up-to-date?
- Is there a potential for alternative use and modification of facilities?

Utilisation of staff

- Are there conflicts in terms of industrial awards?
- Are there any professional development activities to facilitate school-TAFE link programs?
- Are there communication and interaction between the sectors?
- Is cross-teaching fostered by the sectors?

Suitability of the educational program

- Does it allow for employment opportunities?
- Does it allow for higher education entrance?
- Does it allow for new initiatives?
- Does it allow for student work experience?

Does it allow for ease of scheduling?
Does it allow for community access?
Does it have provision for equity and access?
Is there an adequate counselling service?
Are teaching and learning methods compatible?

Cost-effectiveness

Is there any duplication of services?
Are there separate funding arrangements?
Could one sector organise both sectors effectively?

Achievement of expected outcomes

Are graduates employed in the local area?
Do graduates continue with further studies?
Do neighbouring shire students use these facilities?
Does it foster a closer relationship between the Department of Education and TAFE employees?

Alternative solutions

Are there alternatives available?
Are there problems associated with alternatives?
Will they satisfy community requirements?
Will they maximise the use of resources?

Results from the field testing

The results from the field testing are grouped into five categories: (a) suitability of location and utilisation of resources and staff, (b) organisational structure and cost-effectiveness, (c) suitability of curriculum, (d) achievement of expected outcomes, and (e) alternative solutions. The following paragraphs briefly describe the results.

Suitability of location and utilisation of resources and staff

In spite of community support, a combination of the lack of potential economic growth, the lack of employment opportunities, and a small town population resulting in insufficient student numbers, leads to the conclusion that BEVFET should not continue to operate the TAFE centre as a separate agency. There are alternatives that would be as effective and which would not reduce the current course offerings. The current layout of the building inhibits the offerings of new programs of study. Under the present system, the maximum use of the resources of the TAFE centre

is severely restricted by the different demands imposed by both organisations (e.g. time tabling, course requirements, staffing). But, if the TAFE centre and the high school come under one operational structure, there is a possibility that new courses could be offered to a larger number of students from years 8 to 12. At the present, there is no formal link or regular communication between the staff at the centre and the staff at the school. General awareness about TAFE program is at a very low level among the school teachers. In addition, the staff from both sectors are under different awards. This limits the use of staff to offer a variety of vocational and academic programs for students.

Organisational structure and cost-effectiveness

There are no updated written policies on the organisation and operation of the centre. Over the past four years, no initiatives have been taken to closely integrate the school and the TAFE centre. This has led to the school and the TAFE centre becoming distinct identities. As a result, resources and facilities were not being used to their potential. The centre was opened without a specific funding policy for its operation. At present the operational funding for the centre is coming from BEVFET and the Department of Education. The estimated operational budget per annum is about \$140,000 from BEVFET and \$40,000 per annum from the Department of Education. This is considered an excessive amount by BEVFET. In fact, a major part of this operational cost results from offering courses for 20-24 high school students who attend the centre for 50% of their class schedule.

Suitability of curriculum

The centre was established to broaden the curriculum for all high school students. This has not been achieved because of the focus by the high school on students' gaining a TE score, the block time required by TAFE courses which is difficult to accommodate within the existing time-tabling arrangements in the high school, the lack of cooperation between both staff in providing additional subjects and the ineffective use of the existing campus as well as the community facilities.

In addition to this, the guidance provided to the students on subject choice is

minimal. The subjects offered at the TAFE centre provide very limited employment prospects. The subjects may assist the students to gain an apprenticeship but they do not allow for any advanced standing in other courses. If advanced standing and improving employment prospects for its graduates are the objectives of the TAFE centre, then there is a need to examine critically the subjects offered and the facilities available. The staff of the TAFE centre are not on the curriculum committee of the high school; thus there are no opportunities for offering a full range of subjects for students. In addition, there has been only a limited attempt to offer students correspondence programs from the Queensland Distance Education College and/or Secondary School Distance Education. Overall this lack of cohesion emphasises the need to have one agency in control so that the students receive maximum benefits from the staff's expertise, curriculum offerings, and facilities.

Achievement of expected outcomes

The outcomes of the school-TAFE link could be viewed from the educational and employment opportunities available for students at the completion of their school-TAFE program. The senior secondary school students who took TAFE subjects in conjunction with academic subjects could have had a marginal advantage in gaining employment over the non-TAFE oriented students in the school at the completion of their studies. This employment also included access to apprenticeships. The TAFE oriented school students acquired basic practical skills in a few trade areas. The knowledge, skills and experience acquired through the school-TAFE link might have made these students employable in occupations of their choice or helped them to gain an apprenticeship. However, the TAFE oriented students lost the chance of entering university education because the courses offered for the TAFE oriented students were not considered for Tertiary Entrance (TE) score. There were no mutual arrangements between the school and the TAFE centre to organise scheduling of classes to facilitate students taking TAFE courses while encouraging them to do subjects for tertiary entrance.

Alternative solution

As a consequence of this evaluation, the following three options were considered:

- i. close down the centre as a cost saving measure,
- ii. improve the current organisational and administrative structure by introducing appropriate changes while maintaining the identities of the TAFE centre and the high school for satisfying the educational expectations of the community, or
- iii. create a comprehensive education facility by combining the centre and the school within a single administrative structure under the Department of Education.

The closure option is neither politically nor educationally desirable. Improving the current situation is possible but would probably require additional funding and resources as well as generating a very complex organisational structure. Thus, this evaluation supported the option of creating a comprehensive education facility from the viewpoint of cost-effectiveness and broader curriculum offerings. This facility can be used to gain community support. Based on this, the primary recommendation of this evaluation was that the centre be reorganised to operate under the control of the Department of Education.

Conclusion

The model can be applied to various types of school-TAFE link programs. This model has provision for an analysis of the consequences of the results from a school-TAFE link and for the development of recommendations for improvements. Thus, it is called the RCRD model; meaning R for Results; C for Consequences; R for Recommendations; and D for Decisions. The use of the model could be facilitated by the analytical framework which depicts the evaluation context. The model is developed to evaluate the major processes involved in the school-TAFE link situation. It can be used by administrators or practitioners who are interested in determining the effectiveness and efficiency of school-TAFE link programs. This model emphasises the collection and analysis of both qualitative and quantitative

information for rational and practical decision-making by incorporating both subjective and objective judgements into the evaluation process.

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Figure 2: CURRENT STRUCTURE OF SCHOOL-TAFE LINK

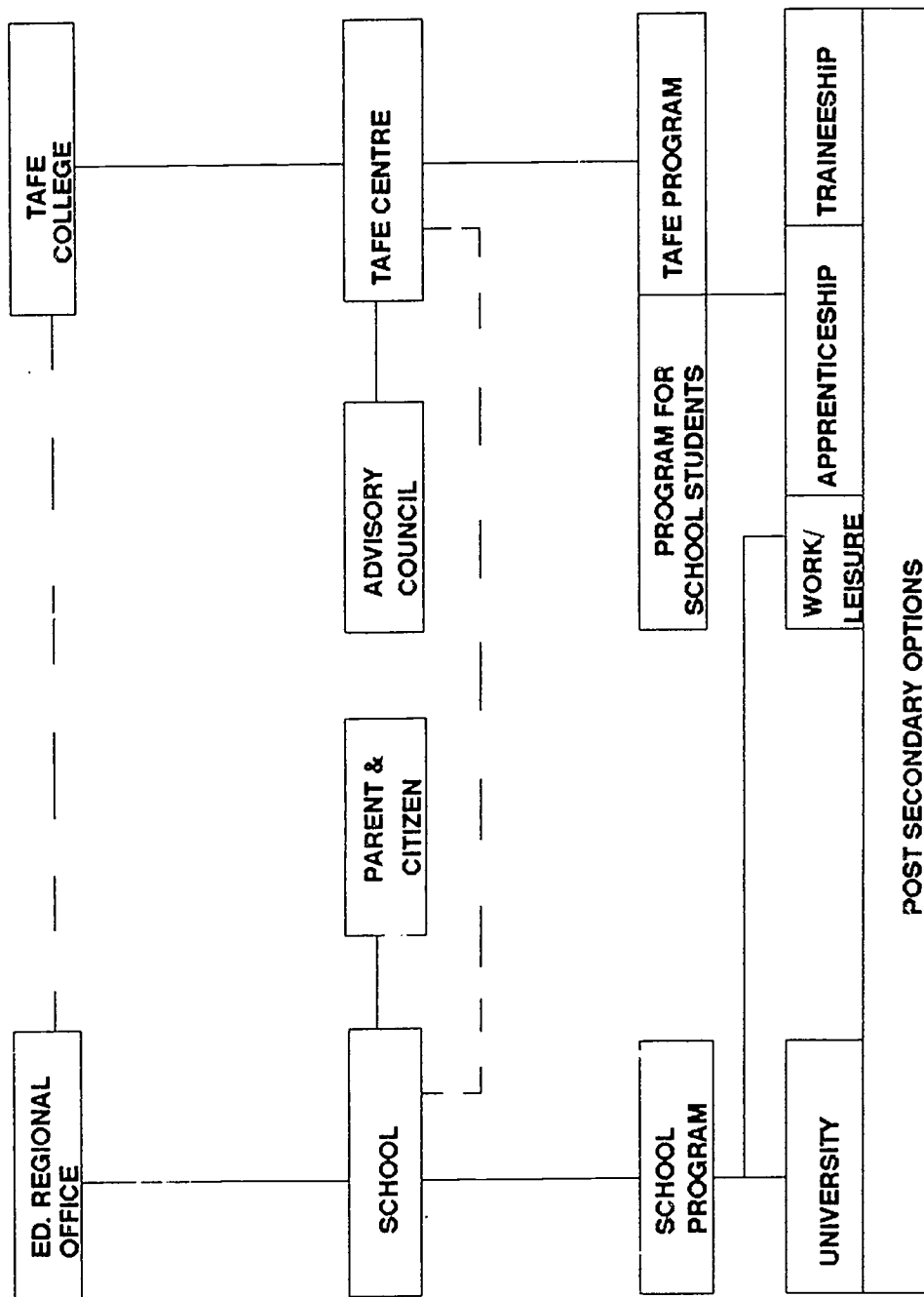


Figure 3: RCRD MODEL FOR EVALUATING A SCHOOL, -TAFE LINK

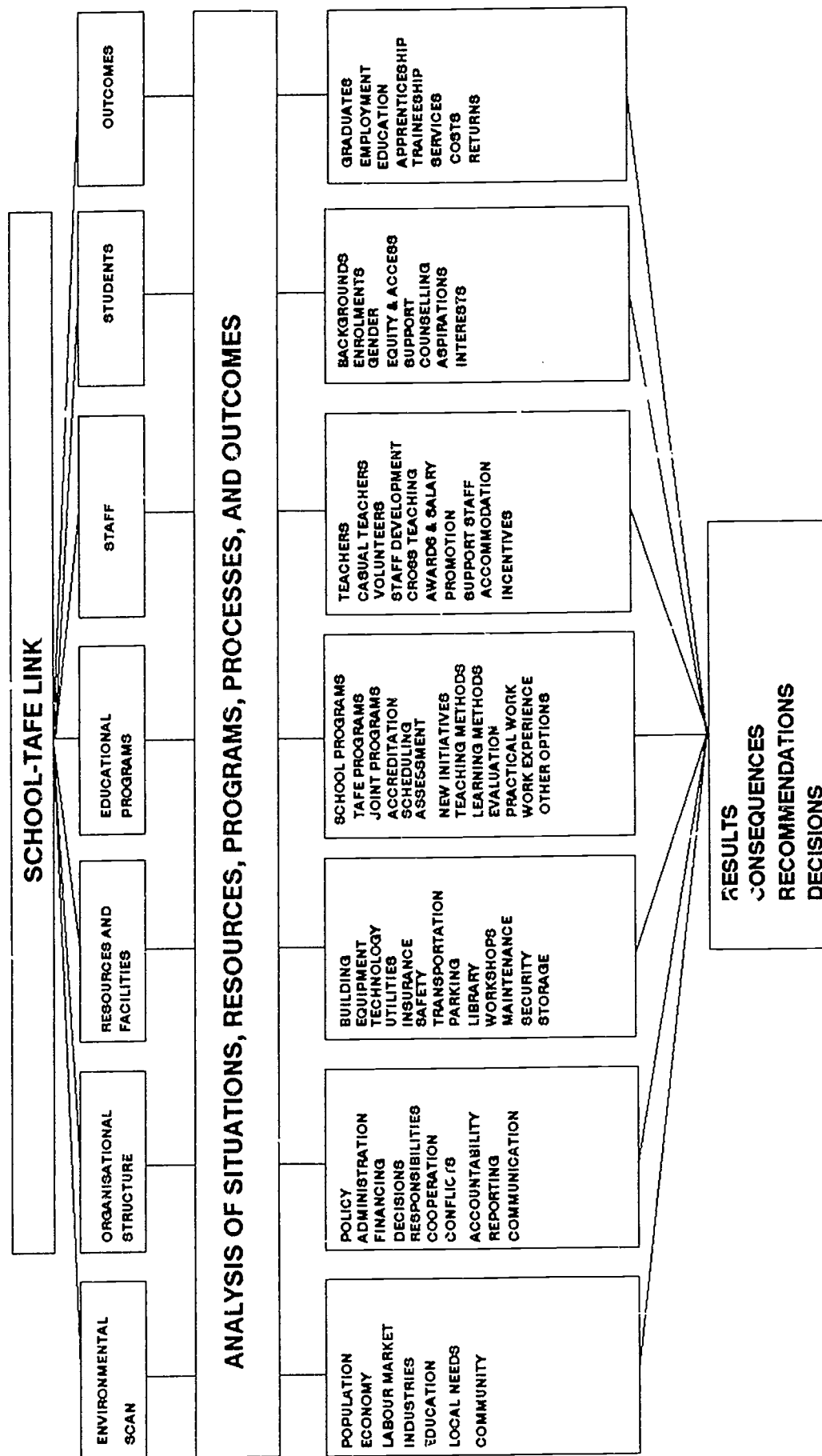


FIGURE 1: RCRD MODEL OF EVALUATING SCHOOL-TAFE LINK

